

AMENDMENTS TO THE CLAIMS

1-31. Cancelled.

32. **(Previously Presented)** A network device comprising:

a cross-connect, wherein

said cross-connect is configured to receive a first frame and a second frame,  
said first frame and said second frame are time-division multiplexed frames, and  
said cross-connect is configured to relocate network management information  
from a first set of byte locations of a first frame to a second set of byte  
locations of a second frame.

33. **(Previously Presented)** The network device of claim 32, further comprising:

a control vector memory, wherein

said cross-connect is configured to receive a plurality of time slots,  
said time slots comprise said first frame and said second frame, and  
said control vector memory is coupled to control said cross-connect by virtue of  
being configured to cause said cross-connect to cross-connect said time  
slots.

34. **(Previously Presented)** The network device of claim 33, wherein said cross-

connect comprises:

a plurality of TDM processors, wherein

said control vector memory is coupled to control each of said TDM processors by  
virtue of being configured to cause each of said TDM processors to  
select at least one of said time slots.

35. **(Previously Presented)** The network device of claim 34, wherein said each of said  
TDM processors comprise:

an output interface; and

a multiplexer, wherein

an output of said multiplexer is coupled to said output interface, and

said control vector memory is coupled to control said multiplexer.

36. **(Previously Presented)** The network device of claim 34, further comprising:  
a plurality of input buffers, wherein  
each of said input buffers is coupled to at least one of said TDM processors,  
said control vector memory is coupled to control each of said input buffers,  
said cross-connect is configured to receive a plurality of incoming time slots,  
said cross-connect is configured to output a plurality of outgoing time slots,  
said input buffers are configured to allow said incoming time slots to be  
sequentially written into said input buffers, and  
said input buffers are configured to allow said outgoing time slots to be randomly  
read from said input buffers.
37. **(Previously Presented)** The network device of claim 36, wherein said each of said  
TDM processors comprise:  
a multiplexer, wherein  
said control vector memory is coupled to control said multiplexer to select an  
output of one of said input buffers.
38. **(Previously Presented)** The network device of claim 32, further comprising:  
a message router, wherein  
said message router is configured to extract and route said network management  
information, and  
an output of said message router is coupled to a first input of said cross-connect.
39. **(Previously Presented)** The network device of claim 38, further comprising:  
a timing, communication, and control (TCC) processor, wherein  
said TCC processor comprises said cross-connect, said control vector memory  
and said message router.
40. **(Previously Presented)** The network device of claim 39, wherein  
an output of said cross-connect is coupled to an output of said TCC processor,

a second input of said cross-connect is coupled to an input of said TCC processor, and  
an input of said message router is coupled to said input of said TCC processor.

41. **(Previously Presented)** The network device of claim 40, further comprising:  
a first system communications link (SCL) bus, coupled to said input of said TCC  
processor, and  
a second SCL bus, coupled to said output of said TCC processor, wherein  
said cross-connect is configured to receive a plurality of incoming time slots via  
said first SCL bus,  
said cross-connect is configured to output a plurality of outgoing time slots via  
said second ACL bus.
42. **(Previously Presented)** The network device of claim 40, further comprising:  
a control vector memory, wherein  
said control vector memory is coupled to control said cross-connect, and  
said control vector memory is configured to cause said cross-connect to control a  
cross-connection of a plurality of said time slots.
43. **(Previously Presented)** The network device of claim 42, wherein  
said control vector memory is configured to cause said cross-connect to control said  
cross-connection of said plurality of said time slots by virtue of being configured  
to cause said cross-connect to select one of said first input and said second input.
44. **(Previously Presented)** The network device of claim 42, wherein said cross-  
connect comprises:  
a plurality of TDM processors, wherein  
each of said TDM processors is configured to select at least one of said time slots,  
and  
said control vector memory is coupled to control each of said TDM processors.
45. **(Previously Presented)** The network device of claim 44, further comprising:  
a plurality of input buffers, wherein

said each of said TDM processors comprise  
        an output interface; and  
        a multiplexer,  
    an output of said multiplexer is coupled to said output interface,  
    said control vector memory is coupled to control said multiplexer,  
    each of said input buffers is coupled to at least one of said TDM processors,  
    said control vector memory is coupled to control each of said input buffers,  
        and  
    said control vector memory is coupled to control said multiplexer to select an  
        output of one of said input buffers.

46. **(Previously Presented)** A network device comprising:  
    a cross-connect, wherein  
        said cross-connect comprises  
            a plurality of TDM processors, and  
            a plurality of input buffers,  
        said control vector memory is coupled to control each of said TDM processors,  
            and  
        an output of each of said input buffers is coupled to an input of at least one of said  
            TDM processors.
47. **(Previously Presented)** The network device of claim 46, wherein  
    said cross-connect is configured to receive a first frame and a second frame,  
    said first frame and said second frame are time-division multiplexed frames, and  
    said cross-connect is configured to relocate network management information from a first  
        set of byte locations of a first frame to a second set of byte locations of a second  
        frame.
48. **(Previously Presented)** The network device of claim 46, wherein said each of said  
    TDM processors comprise:  
        an output interface; and  
        a multiplexer, wherein

an output of said multiplexer is coupled to said output interface, and  
an input of said multiplexer is coupled to at least one of said input buffers.

49. **(Previously Presented)** The network device of claim 48, further comprising:  
a control vector memory, wherein  
said control vector memory is coupled to control said cross-connect
50. **(Previously Presented)** The network device of claim 49, wherein  
said control vector memory is coupled to control said cross-connect by virtue of being  
coupled to control said multiplexers and said input buffers.
51. **(Previously Presented)** The network device of claim 49, further comprising:  
a message router, wherein  
an output of said message router is coupled to a first input of said cross-connect.
52. **(Previously Presented)** The network device of claim 50, further comprising:  
a timing, communication, and control (TCC) processor, wherein  
said TCC processor comprises said cross-connect, said control vector memory  
and said message router.
53. **(Previously Presented)** The network device of claim 52, wherein  
an output of said cross-connect is coupled to an output of said TCC processor,  
a second input of said cross-connect is coupled to an input of said TCC processor, and  
an input of said message router is coupled to said input of said TCC processor.
54. **(Previously Presented)** The network device of claim 53, further comprising:  
a first system communications link (SCL) bus coupled to said input of said TCC  
processor, and  
a second SCL bus coupled to said output of said TCC processor.
55. **(Previously Presented)** The network device of claim 53, wherein  
said control vector memory is configured to cause said cross-connect to select one of said  
first input and said second input.

56. (New) A method comprising:  
receiving a first frame and a second frame, wherein  
said first frame and said second frame are time-division multiplexed frames; and  
relocating network management information from a first set of byte locations of a first  
frame to a second set of byte locations of a second frame.
57. (New) The method of claim 56, further comprising:  
receiving a plurality of time slots, wherein  
said time slots comprise said first frame and said second frame; and  
cross-connecting said time slots.
58. (New) The method of claim 56, further comprising:  
selecting at least one of said time slots.
59. (New) The method of claim 58, further comprising:  
receiving a plurality of incoming time slots;  
sequentially writing said incoming time slots into a plurality of input buffers;  
randomly reading a plurality of outgoing time slots from said input buffers; and  
outputting said outgoing time slots.
60. (New) The method of claim 56, further comprising:  
extracting said network management information; and  
routing said network management information.
61. (New) The method of claim 60, wherein said cross-connect comprises:  
selecting at least one of said time slots.
62. (New) An apparatus comprising:  
means for receiving a first frame and a second frame, wherein  
said first frame and said second frame are time-division multiplexed frames; and  
means for relocating network management information from a first set of byte locations  
of a first frame to a second set of byte locations of a second frame.

63. (New) The apparatus of claim 62, further comprising:  
means for receiving a plurality of time slots, wherein  
said time slots comprise said first frame and said second frame; and  
means for cross-connecting said time slots.
64. (New) The apparatus of claim 62, further comprising:  
means for selecting at least one of said time slots.
65. (New) The apparatus of claim 64, further comprising:  
means for receiving a plurality of incoming time slots;  
means for sequentially writing said incoming time slots into a plurality of input buffers;  
means for randomly reading a plurality of outgoing time slots from said input buffers;  
and  
means for outputting said outgoing time slots.
66. (New) The apparatus of claim 62, further comprising:  
means for extracting said network management information; and  
means for routing said network management information.
67. (New) The apparatus of claim 66, wherein said cross-connect comprises:  
means for selecting at least one of said time slots.
68. (New) A computer program product comprising:  
a first set of instructions, executable on a computer system, configured to receive a first  
frame and a second frame, wherein  
said first frame and said second frame are time-division multiplexed frames;  
a second set of instructions, executable on said computer system, configured to relocate  
network management information from a first set of byte locations of a first frame  
to a second set of byte locations of a second frame; and  
computer readable media, wherein said computer program product is encoded in said  
computer readable media.

69. (New) The computer program product of claim 68, further comprising:  
a third set of instructions, executable on said computer system, configured to receive a plurality of time slots, wherein  
said time slots comprise said first frame and said second frame; and  
a fourth set of instructions, executable on said computer system, configured to cross-connect said time slots.
70. (New) The computer program product of claim 69, further comprising:  
a fifth set of instructions, executable on said computer system, configured to select at least one of said time slots.
71. (New) The computer program product of claim 70, further comprising:  
a sixth set of instructions, executable on said computer system, configured to receive a plurality of incoming time slots;  
a seventh set of instructions, executable on said computer system, configured to sequentially write said incoming time slots into a plurality of input buffers;  
a eighth set of instructions, executable on said computer system, configured to randomly read a plurality of outgoing time slots from said input buffers; and  
an ninth set of instructions, executable on said computer system, configured to output said outgoing time slots.
72. (New) The computer program product of claim 69, further comprising:  
a fifth set of instructions, executable on said computer system, configured to extract said network management information; and  
a sixth set of instructions, executable on said computer system, configured to select at least one of said time slots.